Extraction of natural dyes as textile colourants from kitchen wastes

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Abstract

This research study focuses on the dyeing of cellulosic fabrics with aqueous extracts from two different domestic wastes. Two methods of dyeing (i.e. with mordanting and without mordanting) were carried out on cotton fabrics. The extraction of brilliant brown and red colours from kitchen wastes is of particular interest. Colouring matter from used tea leaves (*Camellia sinensis*) and big onion (*Alium cepa*) skin were extracted and dyeing tests were performed. Colour strength, shade and fastness properties of the dyeing were tested. The extracts were applied under optimum conditions with one synthetic mordant (*CuSO₄*) and two natural mordants (*Sepalika* (*Nyctanthes arbor-tristis*) and *Aralu* (*Terminalia Chebula*)). The results prove the potential of such wastes as a source for natural dye extraction. To obtain textile dyeing with acceptable fastness properties, however, rigorous selection of dyes and development of suitable processes are required.